



**THE HEALTH CARE BIOTECHNOLOGY  
INDUSTRY IN FRANCE  
LEEM HEALTH CARE BIOTECHNOLOGY  
COMMITTEE REPORT  
ISSUE 2014**

# Study perimeter

- **BIOTECHNOLOGY OECD DEFINITION**

“The application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services.”

- **TARGETS** : SME and micro-enterprises

- **FIELD OF APPLICATIONS** : Human and animal health

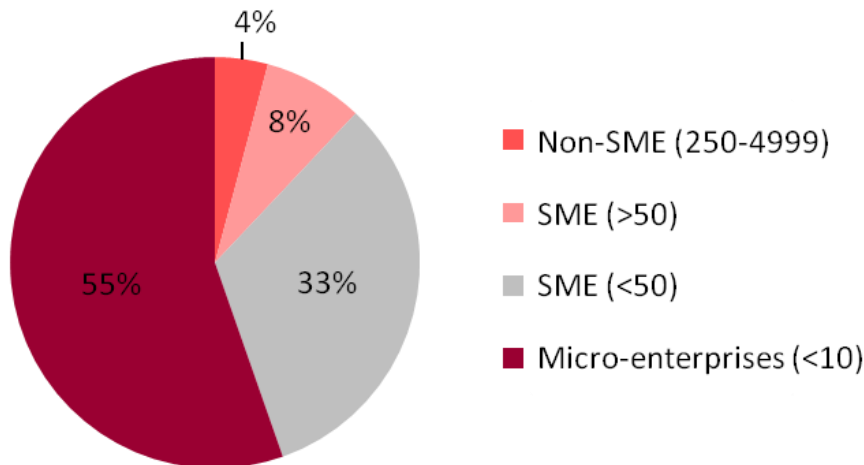
- **ACTIVITIES** : > 25% in biotechnology / **R&D, production and/or commercialisation of products** (therapeutic products and products to conduct research) and/or **services** dedicated to health care industries, such as CRO (Contract Research Organisation). Equipment manufacturers are not included in this study.

- **APPLICATIONS** : Beyond therapeutic products, *In Vitro* Diagnostic and Medical Devices are included, provided the products include biotechnologies.

# A growing sector

- **HEALTH CARE BIOTECHNOLOGY SECTOR IN FRANCE : 457 companies in 2013 versus 388 in 2010**, without the 64 big pharma or diagnostic companies

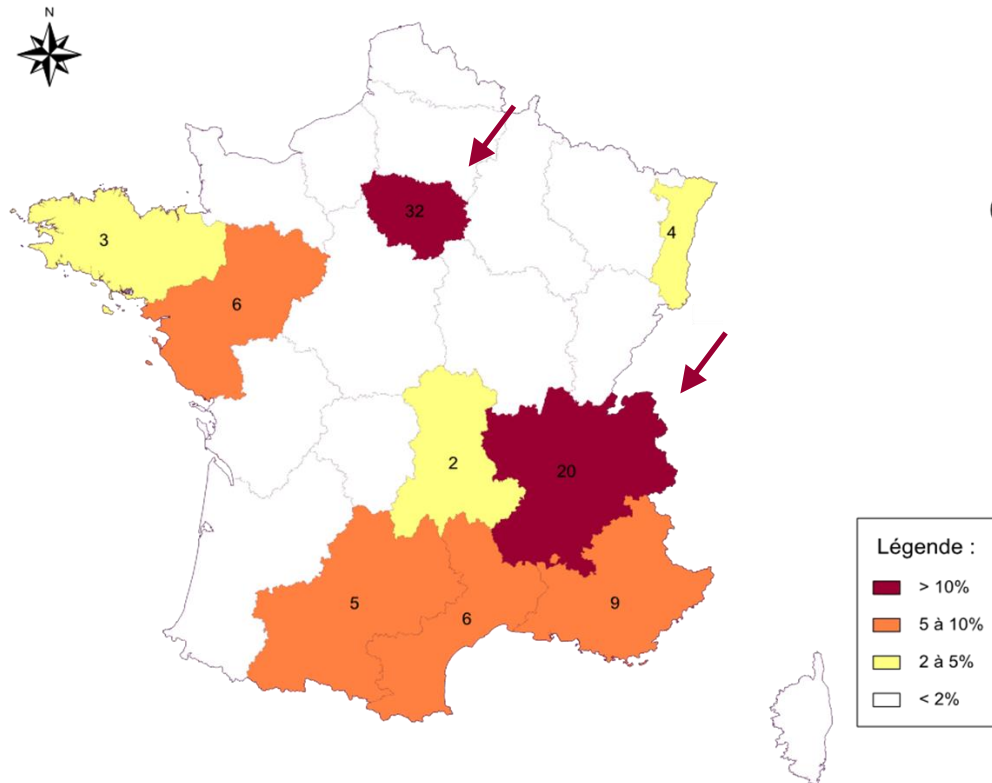
Distribution of health care biotechnology companies (without big pharma) by company size (n=457)



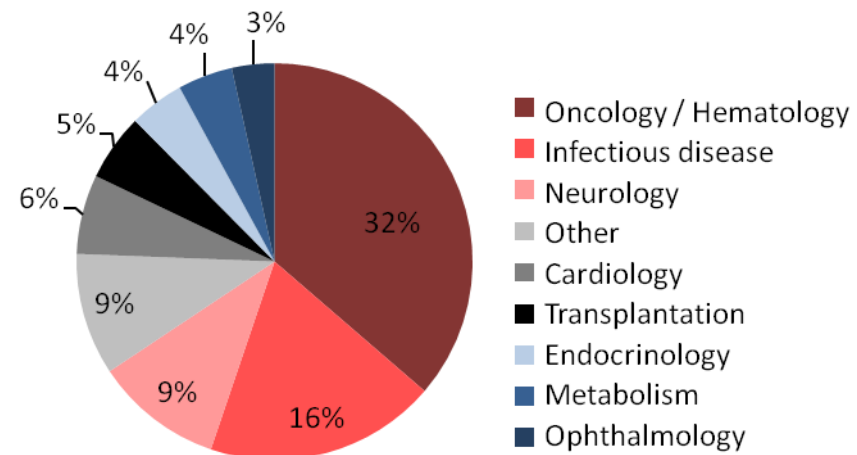
- **18% growth regarding the number of companies**
- **Mainly micro-enterprises in this sector**
- **Turnover of € 2.8 billion**
- **33,000 employees**
- **95% in human health**

Companies are located in pharmaceutical historical regions. They focus mainly on oncology and infectiology

Geographical distribution of health care biotechnology companies (n=457)



Companies focus area by indication (n=231, companies developing products)\*



\* Therapeutic areas involving less than 3% of the companies are not represented

# Companies along the value chain (n=457)



**231 companies developing products**

Of which « Therapeutic products » (230 companies)  
 Of which « Diagnostic products » (83 companies)  
 Of which « Products to conduct research » (87 companies)

**84 dual companies: products and services**

**142 companies providing services**



# Evolution of companies' positioning since 2010



**231 companies developing products**

210 in 2010  
 Of which « Therapeutic products » (230 companies)  
 Of which « Diagnostic products » (83 companies)  
 Of which « Products to conduct research » (87 companies)

**84 dual companies: products and services**

23 in 2010

**142 companies providing services**



	Growth rate (%)
Global	18
Products companies	10
Services companies	-8
Dual companies	265
CRO	37
CMO	5
Bioinformatics	142

→ Evolution of the companies positioning towards dual model



## Since 2010, several companies moved towards a dual model

**PRODUCT**  
(18 COMPANIES)

**Product to dual :**

**innobiochips**

- Generating sales
- Securing the overall financing plan
- Strengthening the technology awareness through service before embedding it in a product

**DUAL**

- Complex model to manage
- Evolution to monitor in the coming years

**Service to dual :**

**Onco design**  
BIOTECHNOLOGY

**valneva™**

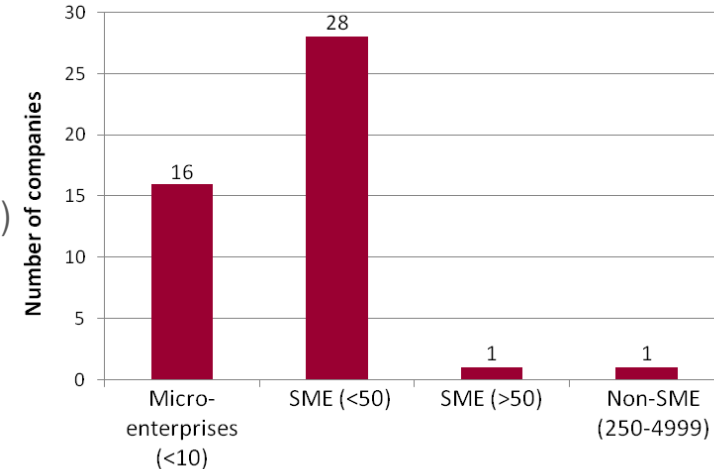
- Generating growth and value
- More relevant and readable for fundraising from venture capitalists
- Targeted market: therapeutic products (85%)

**SERVICE**  
(20 COMPANIES)



# Sector dynamics since 2010

- **46 COMPANIES OUT OF BUSINESS**
  - Mainly micro-enterprises and SME (<50 employees)
- **72 CREATED COMPANIES**
  - Interest for the dual model (25%)
- **23 COMPANIES NOT INVOLVED IN HEALTH ANYMORE**
  - Shifting to 'cleantech', nutrition or cosmetics
- **66 COMPANIES INCLUDED IN THE SCOPE**
  - Investment in the health sector more explicit or reaching a threshold of visibility since 2010





# Focus on disappeared companies

- 46 COMPANIES OUT OF BUSINESS SINCE 2010, 12%
  - Majority (32) → development issues for companies
  - 13 acquisitions and consolidations (ex : Millegen via LFB), of which 85% were realised by French companies (11/13)

- NO SIGNIFICANT OVERREPRESENTATION  
OF ONE CLASS OF COMPANIES

(PRODUCT/DUAL/SERVICE)

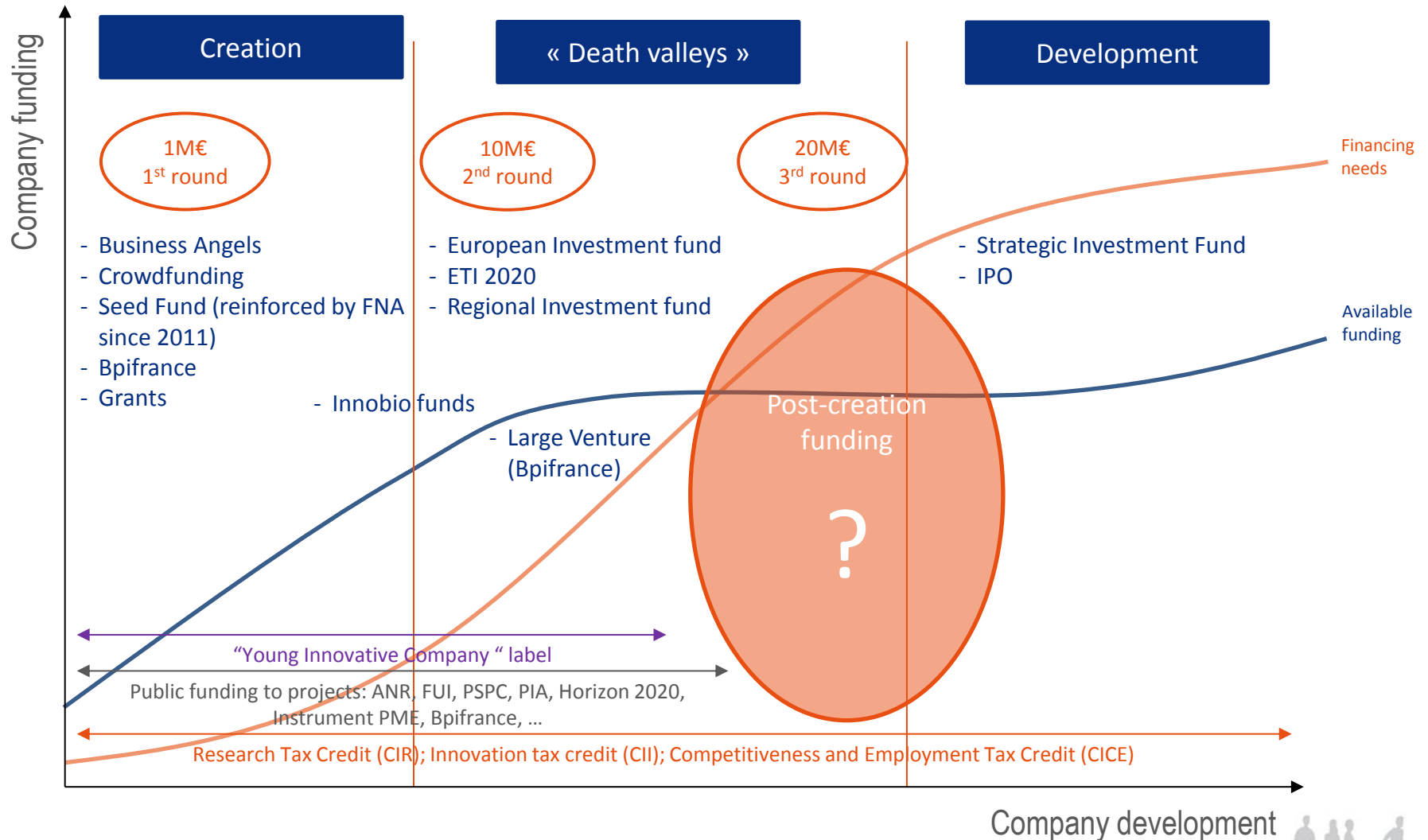
	Total companies from the 2010 database (%)	Disappeared companies (%)
Product	54	50
Service	40	39
Dual	6	11

- AMONG THE 49 *IN VITRO* DIAGNOSTICS IDENTIFIED IN 2010, 13 HAVE DISAPPEARED, 27%.
  - They thus represent 28% of disappearances while they represented 13% of companies

# Companies are struggling to grow

- **LOOKING AT CRO (188 COMPANIES)**
  - 57% of these firms have less than 10 employees
  - 161 companies generate sales, among them 83% generate less than € 2 millions
  - In this population, the turnover / staff ratio is € 46,848, (still turnover represents only part of a company's revenues )
  - If limiting to companies older than 3 year old, the ratio is € 49,318
  
- **DIFFICULTIES RELATED TO SEVERAL FACTORS**
  - Funding
  - International competition (Eastern Europe, Asia, ...)
  - National competition from public structures (platforms, institutes, Equipex, CRT, ...), in particular on preclinical activities, enhanced by the fact that all expenditure contracted out to public-sector bodies is double-counted
  - Lack of offers consolidation, at the creation stage or during companies lifecycle

# A lack of funding in the post-creation stages



# French stock market dynamism

- **26 PUBLIC COMPANIES IN THE SCOPE**
  - Capitalisation: € 6 billion (May 2014)
  
- **AMOUNT OF CAPITALISATION AND FUND RAISED IS AN ORDER OF MAGNITUDE LOWER THAN IN USA OR UK**
  - Circassia, € 300M raised in March 2014 (UK)
  - Ultragenyx pharmaceuticals, € 90M raised in January 2014 (USA)
  
- **KEY ISSUE OF CRITICAL MASS**
  - Economic efficiency, profitability
  - Sufficient visibility
  - Necessary consolidation
  
- **DIFFICULTIES IN RAISING FUNDS DURING THE DEVELOPMENT PHASE**

Introduction date	Number of companies
Before 2010	11
In 2010	5
In 2011	0
In 2012	5
In 2013	1
January to May 2014	4

Company	Amount raised in the introduction, first quarter of 2014 (€M)
Genomic Vision	23
Oncodesign	12,8
GenticeL	34,5
TxCell	16,2

# Numerous Public-Private collaborations

- 46% OF SURVEY RESPONDENTS INDICATE HAVING PARTNERSHIPS
  - Academic environment favorable for collaborations
    - ▶ France well positioned (2<sup>nd</sup> to 4<sup>th</sup> place in international rankings, depending on the life sciences field)
    - ▶ Research of excellence supported by the **PIA** (Labex, etc)
    - ▶ **Good integration between academic research and hospital** : 32 CHRU, 6 IHU and 2 PHU
    - ▶ Leader in the fields of **cancer and rare diseases in clinical research**
  - Structures focused on collaborative research
    - ▶ Recent structures dedicated to collaborations (IRT, LabCom, Instituts Carnot)
  
- **FUI AND BPIFRANCE FUND A LARGE SHARE OF THESE PARTNERSHIPS**
  - ▶ 38% participation in an FUI funded project (survey respondents)
  - ▶ 40% of ISI collaborative funding (Innovation Stratégique Industrielle, Bpifrance) dedicated to health



# Smaller Private-Private collaborations

- COLLABORATIONS ALL ALONG THE VALUE CHAIN
- NEW FORMS OF PARTNERSHIPS EMERGING
  - Business centers
  - Staff secondments

- **BUT MODEST FINANCIAL AGREEMENTS  
IN FRANCE**

	Total amount	Upfront payment
<b>International</b>		
Roche – Chiasma	€ 430M	€47M
Ablynx - AbbVie	€ 607.7M	€ 126.6M
MorphoSys - GSK	€ 420M	€ 20M
<b>France</b>		
BioAlliance Pharma - Innocutis	€ 3.6M	NC
DBV - Stallergenes	€ 145M	NC
Collectis - Servier	€ 618M (6 products)	€ 7M

# Support to be strengthen during the development phase

- 28 INCUBATORS WITH THE « ALLÈGRE » LABEL
  - 28% of incubated projects in life sciences
  - 3,4% in the biotechnology field
- 34% OF MESR CONTEST WINNERS ARE IN THE PHARMA INDUSTRY / BIOTECH SECTOR
- € 2.7 billion FINANCIAL SUPPORT FOR COMPANY CREATION IN 2011
  - Large collection of support tools making them difficult to understand
- SUPPORT DURING THE DEVELOPMENT PHASE IS MORE LIMITED
  - With the exception of some initiatives (BPI Biotech Garantie)
  - French Cour des Comptes « Evaluation of measures to support entrepreneurship » 2012

# Biotech sector dominated by SMEs

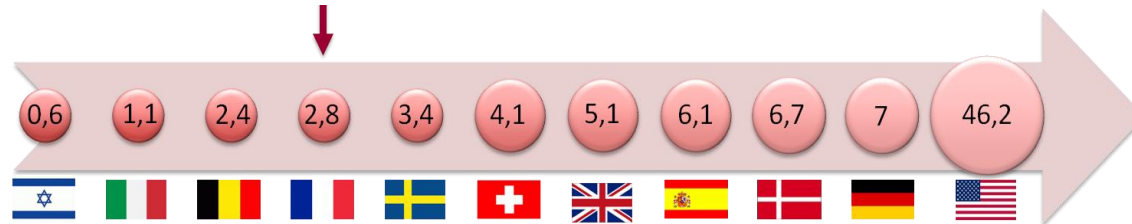


3<sup>rd</sup> position in terms of number of companies  
→ Dominated by SMEs with less than 250 employees



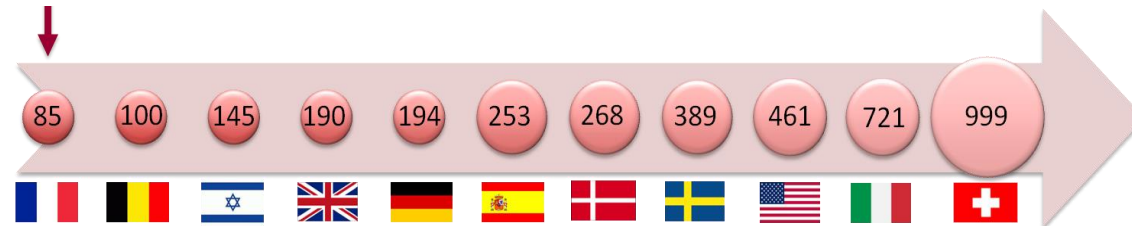
# United States largely dominates in terms of turnover

Turnover (€ billion)



7<sup>th</sup> position in terms of turnover at European level

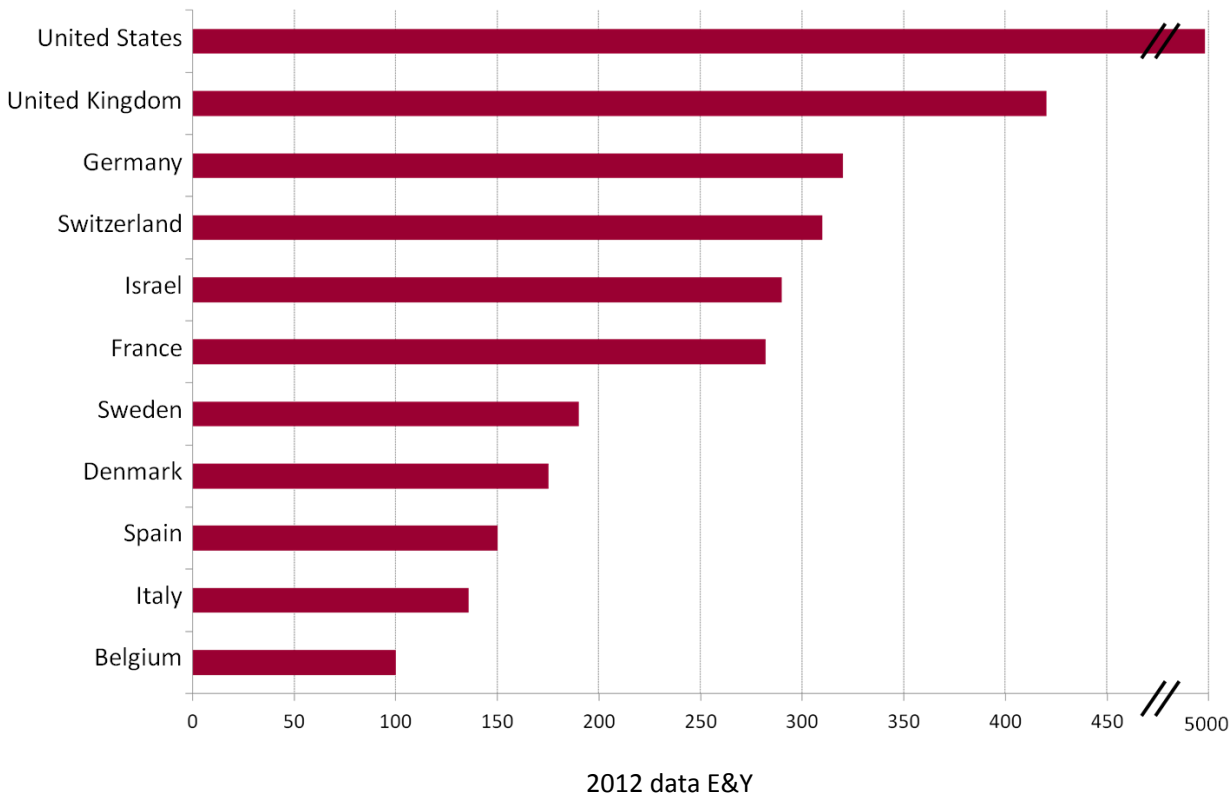
Ratio turnover / employees (k€)



11<sup>th</sup> position in terms of turnover / staff ratio

# Products under development

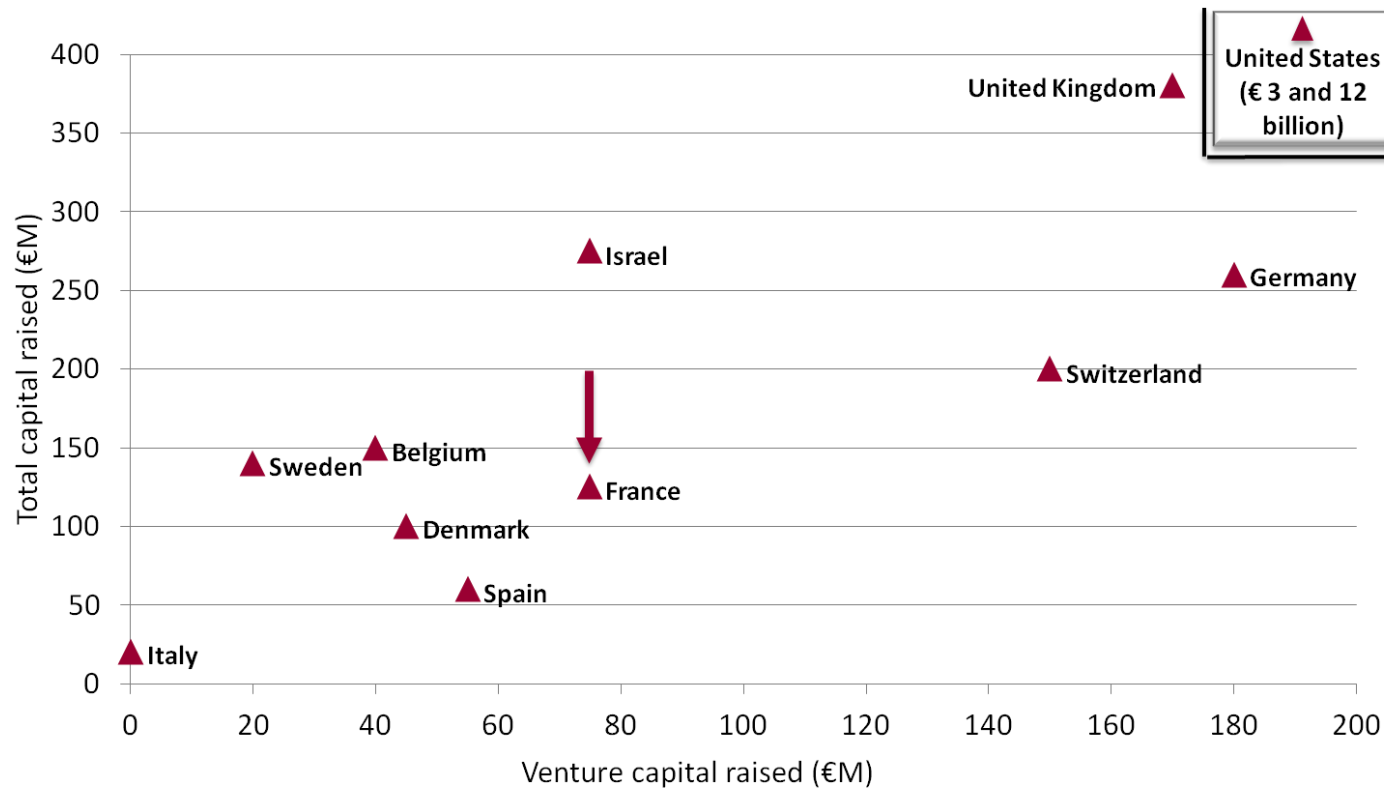
Number of therapeutic products under development  
(bioproducts and small molecules)



4<sup>th</sup> position at European level in terms of number of therapeutic products under development  
 → 49% in preclinical, 12% in phase I, 26% in phase II and 13% in phase III  
 → Stable proportions for France and Europe for a few years

Main therapeutic areas:  
**oncology, infectious disease and neurology**, main biotech areas in concordance with WHO and H2020

# France slightly behind on private funding

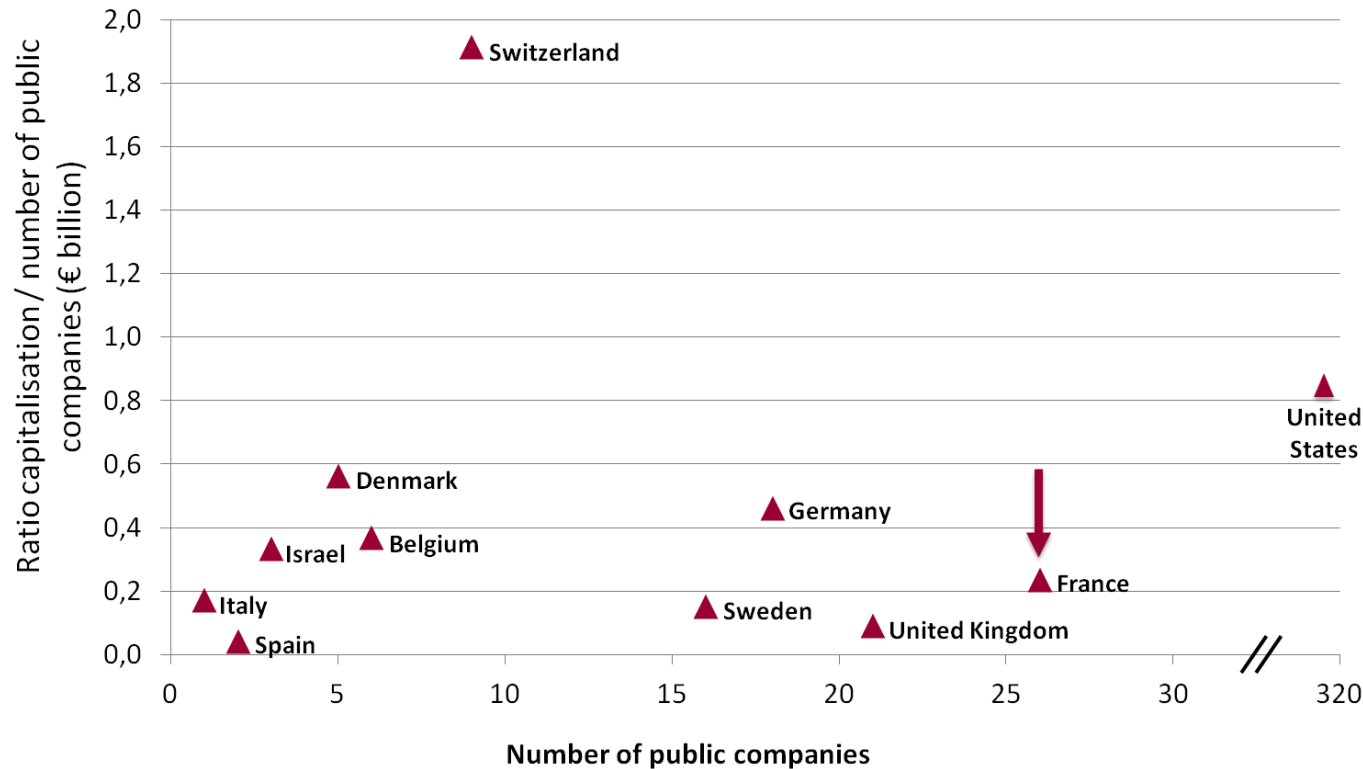


2012 data E&Y

- Fundraising dominated by UK and DE at European level

- 4<sup>th</sup> position of France in terms of venture capital collected and 6<sup>th</sup> position for total private funds raised at the European level

# Despite low capitalisations, French stock exchange is dynamic



• France dominates in terms of number of public companies

Both for long periods (27 introductions between 2007 and 2012), and recently (4 on T1 2014)

• BUT...ranks 5<sup>th</sup> in terms of capitalisation per company at the European level

	Germany	Belgium	Denmark	Spain	France	Israel	Italy	United Kingdom	Sweden	Switzerland	United States
Capitalisation (€ billion)	8,3	2,2	2,8	0,08	6,1	1	0,17	1,9	2,4	17,2	262

Zone Bourse

# Identified areas of improvement

Financing company development (Death Valley) and attracting private capital, particularly foreign capital

The difficulties faced by public-private partnerships in establishing a mutual understanding of how to achieve common goals and appropriate milestones and/or deliverables



Business growth and acquisition (the consolidation of companies in the sector is not yet taking place)

The need to strengthen the international mindset among biotechnology companies

# Examples of international measures



## Bon CTI

→ Assistance to partner search within research institutes and funding of collaborations



## Bayern Innovativ

→ Technical Centre organising events with all actors



**Links** between academic and private worlds throughout people's careers



**Biomedical Catalyst Fund** in translational medicine : 3 prizes supporting projects from idea to marketing (death valley)



**Support for the identification and remuneration of high value company managers** (CEO, CFO, CSO, COO, CIO)



**AWEX thematic network**

